

Writing Word Equations Practice

Name: _____ Period: _____ Seat #: _____

Directions:

Write the skeleton equation.

Show crossing over for any ionic compounds.

Balance when finished.

1) sodium chloride + lead (II) nitrate \rightarrow lead (II) chloride + sodium nitrate

2) iron + chlorine \rightarrow iron (III) chloride

3) barium + water \rightarrow barium hydroxide + hydrogen

4) When chlorine gas reacts with methane (CH₄), carbon tetrachloride and hydrogen chloride are produced.

5) When sodium oxide is added to water, sodium hydroxide is produced.

6) In a blast furnace, iron (III) oxide and carbon monoxide gas produce carbon dioxide gas and iron.

7) Iodine crystals react with chlorine gas to produce iodine trichloride.

Directions:

Write the skeleton equation and include the symbols for the phases if possible.

You do NOT need to show crossing over. If you need to show work to help yourself, then do it on binder paper and staple to this sheet.

You do NOT need to balance these equations unless you have extra time and/or need extra practice.

- 1) Solid sodium reacts with oxygen gas to produce solid sodium oxide.
- 2) Decomposition of solid calcium carbonate undergoes decomposition into solid calcium oxide and carbon dioxide gas.
- 3) Solid potassium chlorate is synthesized by combination of solid potassium, chlorine gas, and oxygen gas.
- 4) Magnesium metal reacts with an aqueous solution of mercury (II) nitrate to form magnesium nitrate and mercury.
- 5) Liquid water and calcium metal react, given that the reaction produces aqueous calcium hydroxide and hydrogen gas.
- 6) Solid copper (I) oxide is formed from copper metal and oxygen.
- 7) Liquid bromine combines with gaseous nitrogen to produce gaseous nitrogen tribromide.
- 8) Potassium nitrate and Lead (II) sulfate are made from a mixture of potassium sulfate and aqueous lead (II) nitrate (all aqueous).
- 9) Solid aluminum oxide is decomposed into aluminum and oxygen.
- 10) Carbon monoxide gas reacts with sulfur trioxide gas to produce carbon dioxide gas and sulfur dioxide gas.
- 11) Ammonia vapor and hydrogen sulfide gas react to produce solid ammonium sulfide. (Hint: Ammonia is NH_3 .)
- 12) Ethane gas, C_2H_6 , reacts with oxygen in a combustion reaction to produce carbon dioxide gas and water vapor.